with advanced relapsed NSCLC (Shepherd et al. NEJM 2005;353:123-32; Hanna et al. J Clin Oncol 2004;22:1589-97). Further required data were estimated from national guidelines and prescribing information for the drugs considered. The analysis was conducted from the perspective of German healthcare funding bodies. Cost data were obtained from published sources for the year 2005. Costs of medical services were derived from EBM 2000plus (the current physicians' uniform fee scale). Drug costs in the outpatient setting were taken from the IfAP® Index drug price list. For hospital admissions due to AEs, the disease related groups for lung cancer were used. Reflecting the social health insurance (SHI) system, patient co-payments for drugs and hospital treatment, and the legally required discounts from pharmacists and drug manufacturers to the SHI system were both taken into account.

Results: The base cost per quarter per patient treated with erlotinib was €8,172, versus €8,055 for docetaxel and €15,870 for pemetrexed. Including the cost of managing AEs, the total quarterly cost per patient on erlotinib was €8,376, versus €9,976 for docetaxel and €16,596 for pemetrexed. Sensitivity analyses indicated that the difference in favour of erlotinib was a robust finding, being maintained across a range of cost conditions.

Conclusions: A comparison of total medical care costs per patient shows an overall cost advantage for erlotinib over docetaxel. This may be attributable to the favourable side effect profile of erlotinib, and particularly the lack of haematological toxicity. The overall cost advantage for erlotinib compared with pemetrexed is a consequence of the lower drug costs and lower costs of AE management with erlotinib. The use of erlotinib for second-line therapy of NSCLC has been now shown to have potential health economic benefits for the German healthcare system.

P3-085 **NSCLC: Molecular Targeted Therapy Posters, Wed, Sept 5 – Thurs, Sept 6**

Impact of epidermal growth factor receptor (EGFR) pathway alterations on the outcome of non-small cell lung cancer (NSCLC) patients (pts) treated with first-line chemotherapy (CHT).

Gelibter, Alain; Buttittar, Fiamma; Nuzzo, Carmen; Visca, Paolo; Cecere, Fabiana L.; Cuppone, Federica Sperduti, Isabella; Milella, Michele; Ceribelli, Anna; Cognetti, Francesco

Regina Elena Institute, Rome, Italy

Background: Molecular alterations along the EGFR pathway have been proposed to be the major determinant of clinical outcome in response to EGFR tyrosine kinase inhibition in NSCLC pts. However, their potential impact on sensitivity to CHT has not been studied in detail.

Methods: Advanced NSCLC pts undergoing CHT were screened for EGFR gene mutations (by SSCP and sequencing) and/or increased copy number (by FISH), EGFR protein expression (by IHC), and HER-2, phosphorylated AKT (pAKT), and total AKT protein expression (by IHC). Correlation between specific molecular alterations and clinical outcome (ORR, PFS, and OS) was then retrospectively explored using both the Cox regression model as well as classification and regression trees (CART) analysis.

Results: One hundred and twenty seven pts were screened and 93 received 1st-line CHT. The frequency of EGFR pathway alterations is shown in Table 1. At a median follow up of 13 mos, survival analysis revealed that true EGFR gene amplification is the only significant predictor of worst OS (p=0.004). No significant correlation was found with PFS. ORR was significantly worse in HER-2-positive pts (p=0.03). CART analysis confirmed that true EGFR gene amplification negatively affect OS, followed by EGFR gene mutation and chromosome 7 polysomy in non-amplified and non-amplified/non-mutated pts, respectively.

	Present	Absent	n.e.
EGFR mutations	7	42	44
EGFR gene amplification	10	66	17
#7 Polysomy (≥ 40%)	40	29	24
pAKT (score ≥1+)	56	15	22
EGFR (score ≥1+)	63	15	15
HER-2 (score ≥1+)	36	29	21

Conclusions: EGFR pathway alterations significantly impact on outcome following 1st-line CHT for advanced NSCLC. HER-2 overexpression negatively impacts on ORR, but not on PFS and OS. This information maybe useful in selecting appropriate treatment algorithm for advanced NSCLC pts.

P3-086 **NSCLC: Molecular Targeted Therapy Posters, Wed, Sept 5 – Thurs, Sept 6**

Initial safety results from expended access program (EAP) with erlotinib in non small cell lung cancer (NSCLC) in Israel

Gottfried, Maya[1] Levit, Mark[2] Wollner, Mirjiana[3] Dudnik, Julia[4] Ramu, Nili[5] Flex, Dov[6] Barak, Frida[7] Biran, Haim[8] Cijon, Arnoldo[9] Merimsky, Ofer[10]

[1] Meir Medical Center, Kfar Saba, Israel [2] Sheba Medical Center, Tel Hashomer, Israel [3] Rambam Medical Center, Haifa, Israel [4] Soroka Medical Center, Beer-Sheva, Israel [5] Hadassa Medical Center, Jerusalem, Israel [6] Rabin Medical Center, Petach Tikva, Israel [7] Barzilai Medical Center, Ashkelon, Israel [8] Kaplan Medical Center, Rehovot, ISrael [9] Assaf Harofeh, Zrifin, Israel [10] Sourasky Medical Center, Tel Aviv, Israel

Background: Erlotinib (Tarceva®), an orally active, potent, selective inhibitor of HER1/EGFR tyrosine kinase, significantly prolonged survival, delayed symptom progression, and improved quality of life of NSCLC patients (pts) in the BR.21 phase III placebo controlled trial. The multicenter, open label EAP was initiated for patients with advanced or metastatic NSCLC to provide erlotinib access.

Methods: Stage III/IV NSCLC pts who had failed prior chemotherapy or were unsuitable for chemotherapy. Eligible patients were given oral erlotinib (150mg/day) until disease progression or unacceptable toxicity. The NCI CTC v3.o was used to evaluate toxicities. Dose reductions were allowed. Pts were monitored monthly.

Results: A total of 303 evaluable pts were enrolled in 15 centers, in 12 months. The analysis was done on 194 pts, who represent 64% of the 303 pts enrolled in TRUST in Israel. Patient characteristics: median age 67 years (range 37-86); male 62%, female 38%; caucasian 97%, black 0%, other 1%, no data 2%; ECOG PS0 13%, PS1 42%, PS2 28%, PS3 16%, no data 1%; Stage IIIB 10%, Stage IV 88%, no data 2%; Adenocarcinoma 45%, BAC 7%, LCC 6%, SCC 15%, Other 28%; Prior chemotherapy: 1st line 23%, 2nd line 45%, 3rd line 28%, other 4%; Non-smoker 28%, Former or Current-smoker 72%, no data 1%. As expected, rash was a common AE mainly mild or moderate:G1 and/or 2- 49%, G3 and/or 4 9%. Other G3-4 SAE included: diarrhea <1%; fatigue 3%; dehydration 1%; urticaria 1%; dyspnea 2%. 17% of pts required dose reduction. Dose reductions to 100mg occurred in 14%,